

New York (State) Marine Hospital B
at quarantine THE 13

ANNUAL REPORT

OF THE

PHYSICIAN-IN-CHIEF OF THE MARINE HOSPITAL

AT QUARANTINE.

Presented to the Legislature February 4, 1857.

ALBANY:

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No. 407 Broadway.

1857.

ANNUAL REPORT

OF THE

PHYSICIAN OF THE MARINE HOSPITAL.

To the Hon. HENRY R. SELDEN,
President of the Senate:

Sir—I have the honor to present to the Legislature the annual report of the Physician of Marine Hospital, for the year 1856.

Very respectfully,

Your obedient servant,
ELISHA HARRIS, M D.,
Physician of Marine Hospital.

R E P O R T .

To the Legislature of the State of New-York:

The physician of Marine Hospital respectfully presents his annual report for the year 1856.

In conformity with the requirement of the statutes regulating the official duties of the physician-in-chief of Marine Hospital, (chap. 224, sec. 9th, Laws of 1853,) I herewith present to the Legislature the annual report of the general condition of the hospital, with the statistics of the institution, in detail, and such other information and suggestions as are deemed advisable.

At the close of a year unusually replete with important events at the Marine Hospital and Quarantine, I find that the materials and facts which the Legislature and the people of the State may justly desire to have presented in this report, are so abundant, and of such practical interest to legislators and the public generally, that my principal labor in preparing the document will consist in selecting and arranging the statistics and facts which in the discharge of official duties I have accumulated during the season.

The importance of the Marine Hospital as an essential department of the Quarantine establishment of the port of New-York, and the value of public record of the events which pertain to the history of such a sanitary institution, together with the public interest now taken in all the facts connected with the history of the late visitation of yellow fever at Quarantine, render it my duty to give to your honorable body a full and accurate account of these facts and events, so far as they have a direct and important bearing upon the great questions affecting the sanitary interest of the city and vicinity of New-York.

The Marine Hospital receives and provides for all cases of the infectious and malignant diseases which, for the sanitary protection of community, are placed in this lazaretto under the authority of the board of health of the city of New-York, or by the health officer of the port. The diseases treated in this institution, are typhus fever, small pox and other eruptive fevers; cholera and yellow fever, together with various maladies which being of a doubtful, or of a peculiarly malignant character, are by the sanitary authorities deemed proper subjects for isolation or for quarantine restrictions in this establishment.

STATISTICS OF THE HOSPITAL FOR THE YEAR 1856.

The total number of patients in the hospital during the year was,.....	1,648
The total number admitted,.....	1,556
do discharged,.....	1,368
do died,.....	203

All cases admitted to the hospital are reckoned in the accompanying tables as having been under medical treatment; but it will be observed that thirty-eight (38) persons were, when received into the hospital, *moribund*, or in a dying condition from various diseases of which it was not important that specific record should be made; and none of these patients were subject to or susceptible of medical treatment. Besides this class of moribund patients we received nearly fifty other persons in a dying condition, whose cases admitted of no other than such ministrations as would alleviate the agonies of death; but the maladies from which they were dying, were of such importance to the record of the institution that they were classified under the proper specific heads. This class of moribund patient's consisted principally of yellow fever in an advanced stage of black vomit, typhus fever, and pneumo-typhus. If we should strike out the record of all these cases, together with the cases of phthisis, which are seldom brought to this hospital except in the last and fatal stage of that malady, the average ratio of deaths to cases of disease *actually treated* would be truly gratifying, this ratio being less than seven per cent.

The total number of days spent in the hospital by patients during the year 1856, was 32,625.

Besides the sick admitted to the hospital there were at various times large companies of emigrant passengers placed under our care in the institution for sanitary observation. These were principally from vessels upon which small pox had occurred during the voyage. The total number of persons of this class, was 2,264, and the total number of days spent by them in Marine hospital, was 8,967; hence the total number of days spent at the institution by all persons provided for therein, was 41,586.

ANNUAL REPORT

Of Admissions, Discharges, and Deaths at the Marine Hospital, Quarantine, during the year ending December 31, 1856.

DISEASES.	Admitted during 1856.	Remaining from 1855.	Discharged during 1856.	Total treated.	Total during 1856.	Total discharged during 1856.	Total during 1856.	Dischargees and discharges.	Remainders during Jan. 1st, 1857.	Percentage of patients treated.	Percentage of patients treated on pa-	Remaining during Jan. 1st, 1857.	NATIVITY.	Total.	Discharged.	Died.	Remaining.	MONTHS.			From vessels.	From other sources.	Total.		
																		From city.	From city.	From city.					
Simple fever,.....	11	193	204	197	.....	197	.....	32	1	6,06	Holland,.....	33	30	3	.....	30	3	.....	69	55	1	125		
Typhus fever,.....	38	269	307	245	37	282	25	12	177	12,82	Ireland,.....	64	472	64	26	472	64	26	65	30	3	106			
Yellow fever,.....	177	119	58	58	177	119	58	32	177	1,56	Germany,.....	547	460	40	47	460	40	47	71	12	14	97			
Remittent fever,.....	64	64	63	1	64	63	1	1	64	1,56	England,.....	152	126	24	2	126	24	2	83	84	11	178			
Intermittent fever,.....	2	64	66	64	64	64	2	2	64	1,56	Belgium,.....	36	28	8	.....	28	8	.....	84	67	2	153		
Scarlet fever,.....	4	29	33	30	2	32	1	6	45	6,06	Holland,.....	33	30	3	.....	30	3	.....	69	55	1	125		
Measles,.....	4	41	45	45	45	45	45	8	27	8,05	Sweden & Norway,.....	30	22	8	.....	22	8	.....	83	80	24	196		
Small pox,.....	10	325	336	283	27	310	25	8	31	3,03	Scotland,.....	23	17	6	.....	17	6	.....	46	80	21	147		
Bryspelias,.....	.....	33	33	30	1	31	2	3	32	9,37	France,.....	14	14	14	.....	14	14	.....	76	43	6	125		
Diarrhoea,.....	.....	32	32	29	3	32	3	9	32	9,37	Denmark,.....	13	10	3	.....	10	3	.....	64	35	12	111		
Dysentery,.....	2	24	26	25	1	26	1	3	84	3,84	Italy,.....	9	6	3	.....	6	3	.....	81	85	4	170		
Cholera,.....	8	8	6	2	8	6	2	8	25	4,00	Portugal,.....	7	4	3	.....	4	3	.....	50	6	7	63		
Pneumonia,.....	19	19	13	3	16	3	16	3	15	78	Switzerland,.....	6	5	1	.....	5	1	.....	843	578	135	1,556		
Pneumo-typus,.....	6	6	6	2	4	6	6	6	66	66	Russia,.....	4	4	4	.....	4	4	.....	.....	.....	.....	253		
Phthisis,.....	3	13	16	6	10	16	6	10	62	05	China,.....	1	1	1	.....	1	1	.....	.....	.....	.....	54		
Morbilli,.....	1	37	38	38	38	38	38	38	100	00	West Indies,.....	1	1	1	.....	1	1	.....	.....	.....	.....	1,341		
Other diseases,.....	17	222	239	209	16	225	14	14	6,60	1,648	1,366	203	1,569	79	12,31	1,366	203	79	32,625	32,625	32,625	1,648	1,648	1,648	
Total,.....	92	1,556	1,648	1,366	203	1,569	79	12,31	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	
Remaining January 1, 1856,.....																									
Admitted during the year 1856,.....																									
Discharged during 1856,.....																									
Died during 1856,.....																									
Remaining January 1, 1857,.....																									

Additional cases of yellow fever among employees and residents of the establishment,..... 33

Remaining January 1, 1857,..... 79

Percentage of death to discharges,..... 54

Percentage of death to total treated,..... 12,31

The brief remarks which in this place we will make upon each of the more common maladies mentioned in the tables, will refer to such facts and principles as have a direct bearing upon questions relating to the public health, and affecting sanitary regulations at Quarantine.

TYPHUS FEVER.

Respecting the prevalence and the character of typhus, or ship fever, I had occasion in my last annual report to remark that this malady, the perpetuated curse of famine and overcrowding, appears to be gradually disappearing.

The total number of cases of typhus reported under treatment, at the Marine Hospital during the year 1855, was 945; which was 142 less than was reported by my predecessor in 1854. The total number treated during the year 1856, was but 307, which is less than one third the number reported the previous year. When it is recollected that the Marine Hospital receives all the cases of typhus that occur among emigrant passengers arriving at the port of New-York, as well as a very large proportion of all the cases that occur in the city, it will be seen that these figures have great significance. And it should be further stated, that more than one half the cases registered during the past year under the head of typhus fever was composed of the class known as abdomind typhus or the *typhoid disease*, a malady which appears to be quite distinct from ship fever, and which is seldom if ever infectious.

Though sporadic cases of typhus fever may continue to occur among famishing emigrant passengers, and in the crowded and unventilated tenements of poverty, it is highly probable that until famine and other calamities furnish the proximate causes of the malady in question, cases of this highly infectious form of fever will become more rare every year. *Fresh air, cleanliness, and wholesome aliment, are the great prophylactics against typhus and almost all other diseases; and that philanthropy or legislation which provides for or promotes these physiological conditions of health, confers far-reaching blessings upon mankind.*

SMALL-POX, AND OTHER ERUPTIVE FEVERS

Of the eruptive fevers, measles, small-pox, erysipelas, and scarlatina are admitted to the Marine Hospital, and the cases received of each of these maladies occur principally among

recent immigrants. The peculiar advantages and happy results of hospital treatment for such maladies are very strikingly exhibited in the small ratio of mortality exhibited in the table of statistics. In the treatment of these maladies, the external sanitary conditions which a well conducted hospital affords, produce results which are most gratifying.

The cases of small-pox were received about equally from ship-board and from the city, those of the former class being emigrants and seamen, as well as a larger proportion of the latter class, that were transferred to this Hospital soon after their disembarkation.

The history of the prevalence of small-pox and other infectious maladies among emigrants, forcibly illustrates the importance of providing a sanitarium for the reception and cleansing of emigrant passengers, from vessels upon which such maladies have occurred.

The proposition for the establishment of such a sanitary retreat, was suggested and advocated by my distinguished predecessor in office, DR. ALEXANDER F. VACHE, and it is a subject worthy the consideration of legislators and sanitary officers.

Though the various hospital buildings at Quarantine may accommodate nearly 1600 persons, and have at one period during the past season afforded lodgings for that number, it is very desirable that the proposed sanitary retreat, for persons yet in health, be a department entirely distinct from that in which the sick are provided for ; *while it may very properly be under the same jurisdiction as the Marine Hospital.*

It is believed that when the subject of *vaccination* receives the attention which it deserves, and a sufficiently strict surveillance over infected vessels, passengers and cargoes is enforced by law, the terrible scourge of small-pox will so nearly disappear from us, as to be very seldom seen beyond the limits of the Quarantine Lazaretto.

CHOLERA ASIATICA.

It will be observed by the tables of statistics that several cases of Asiatic cholera have been admitted to the Hospital during the past year. The first cases,—three persons in collapse, were received on the first day of June, from Nicaragua. Up to that date no cholera, nor any tendency thereto, had occurred in any of the wards of the hospitals during the year. These persons were placed in a building by themselves, and every precaution was used to prevent any communication with the other wards.

On the evening of the eighth of June, the day that the last of this company of cholera patients was transferred to the convalescent ward as cured, the malady suddenly made its appearance in the hospital building nearest that in which the cases of cholera had been provided for, and in less than six hours the first victim died, and during the three succeeding days many of the inmates of the hospital presented the premonitory symptoms of cholera, which were arrested by treatment.

Were this the only instance of such an outbreak of cholera in the wards of the Quarantine Hospital soon after the admission and treatment of cases of the malady from shipboard, these facts would not possess such significance as they now do ; but similar events have been observed at this institution for many years.

In my annual report for 1855, I deemed it my duty to remark that " proofs of the infectious nature of Asiatic cholera are constantly being presented in all parts of the world where this terrible disease prevails, and that although the opinions of distinguished men in the medical profession are not unanimous in support of the doctrine of the communicability of cholera, there are such incontrovertible evidences of its being *contingently infectious*, and transmissible from place to place, that the approach or introduction of that malady to our great metropolis should be guarded against with the strictest surveillance." And I would add, that this subject is one of very great importance to every city and village; as *this Oriental scourge invariably follows in the great thoroughfares of travel and commercial intercourse.*

REMITTENT AND INTERMITTENT FEVER.

The cases of remittent and intermittent fever are received principally from southern coastwise vessels, and consist almost exclusively of seamen sent to the hospital by the health officer of the port. The severe or malignant type of the fever in these cases makes this a very *expensive* class of patients, and as no adequate remuneration is now made for the expense thus incurred, the subject calls for the immediate attention of the Legislature, and of the Federal Government.

In a report to the Commissioners of Emigration I have given some details upon the subject of providing for seamen in quarantine, to which reference can be made. (See *annual report of Commissioners of Emigration for 1856, sec. "Marine Hospital."*)

As in that report I have given the statistics relating to this class of patients I need not repeat them here.

It is obviously important that seamen, constituting as they do the largest class of carriers as well as the principal victims of that tropic scourge, to guard against which our quarantine system was mainly designed, should be amply provided for at the Marine Hospital.

YELLOW FEVER.

The approach and fearful presence of a most dreaded pestilence at the very portals of our great commercial emporium during the last summer and autumn justly excited alarming apprehension in the minds of all who take interest or pride in the commercial prosperity of the city and State of New-York. Although it is true that the pestilence only "looked upon" the great mart and centre of our commerce and wealth, and departed without having seriously injured her interests or blighted the homes of her families, except of such as dwelt in the infected district south of that fatal line which approached and finally reached the city limits, the destroyer was for weeks within sight of the crowded avenues of trade, and in suburban districts where least such a pestilence could grow and extend.

The history of the origin and progress of this late threatening visitation of yellow fever is so instructive and so full of importance that I deem it my duty to present to your honorable body a condensed and accurate account of the events of that history as they have been noted and studied at the Marine Hospital.

It should be remarked that the facilities afforded me for observing and recording the important events of the late endemic were peculiarly favorable, and it is believed that the abbreviated summary which is presented in this report, will be of service to legislators, and productive of good to the great interests which are affected by the quarantine system of the Port of New-York. The whole theory of such a system of restrictions and sanitary arrangements and all modifications thereof should manifestly be based upon *medical facts*; and if in the record and arrangement of such facts as will be found condensed in this report, I shall have contributed towards the establishment of a rational system of laws and provisions for the protection of the public health, I shall feel amply repaid for the labor which these records have cost.

I would remark that for the purpose of exhibiting in a condensed and lucid manner the various classes of facts relating to the pestilence that visited us, I have, where it was possible, arranged the history of events in tabular forms.

The first case of yellow fever admitted to Marine hospital was received from a Havana vessel, April 10th. On the morning of the 18th of June, the schooner "Julia M. Hallock" arrived from St. Jago de Cuba, with captain, first mate and one passenger sick with the most malignant form of the fever. This vessel arrived in a storm, and the sick were visited on board by my assistant, Dr. Theo. Walser, who, having learned that I had consented to go to the sick company, anticipated the hazardous undertaking, and thereby jeopardized his own life. This vessel had been seventeen days on the passage, had left one of her crew sick with the fever at St. Jago, and had lost two seamen from the malady before reaching Quarantine. Her cargo, consisting of sugar and molasses, was received from lighters, as she lay at a considerable distance from the town of St. Jago, which place was then beginning to be sickly. After her cargo had been received, the Cuban authorities compelled the vessel to come near the town, where she laid three or four days before she was allowed to depart. The two seamen that died, and the passenger, sickened very soon after leaving port; the captain and mate sickened on about the tenth day from port.

On the 21st of June, the ship "Jane H. Gliddon" arrived from Havana with several of her crew sick, and a gentleman passenger dying. Two seamen had died of the fever on the passage. The cargo consisted of sugar and molasses and *bales of uncleansed rags*. Yellow fever was prevailing extensively among seamen at Havana at the time the "Gliddon" was receiving cargo.

The "Gliddon" was anchored near the middle of the bay opposite the Marine hospital, where she remained until the night of July 3d, when in a violent gale she drifted to the S. E., nearly to the Long Island shore, where she remained for three weeks, until her cargo was partially discharged. Three persons, being an additional number of her crew sick with yellow fever, were admitted to the hospital at different times, viz., one June 29th, one July 1st, and one, July 7th.

On the 2d of July the brig "Eliza Jane" and the bark "Lillias" arrived from Havana, each with a case of yellow fever on board,

and the former having on the passage lost three of her crew with black vomit.

On the evening of July 6th, the ship "Lady Franklin" from Havana to Trieste, arrived at Quarantine in distress with all hands sick with the fever, and two of the crew having died on the passage.

Thus was the pestilence fairly inaugurated at Quarantine at an unusually early period of the season, and in the most malignant form of the malady.

THE ORIGIN AND PROGRESS OF INFECTION.

As has been previously mentioned, on the 18th of June, my Assistant, Dr. Walser, heroically and humanely ventured to visit the sick on board the "Julia M. Hallock." On the 22d he was attacked with the fever, which though sufficiently severe to prove protective, was so mild as to permit his recovery after four days illness. There can be no doubt that he contracted the fever by his exposure in the cabin of that infected vessel.

Previous to the 15th of July several of the infected vessels lying at Quarantine had discharged cargo upon lighters under quarantine order. Up to that date, 26 yellow fever vessels had arrived subsequent to the arrival of the "Hallock;" and of this number ten, or more, were lying at anchor nearly opposite the Marine Hospital, or at Gravesend Bay. The "Gliddon" had discharged a portion of her cargo, and, as subsequently appeared, 14 bales of old rags, from that ill-fated ship, had been stored in an open shed on the U. S. Government dock at Quarantine.

While lying thus at Quarantine, these vessels had destroyed or cast into the bay large quantities of refuse matter, decaying fruits, old bedding, etc., and all such materials as floated on the water were carried in directions and to localities which may be observed on the map as having been subsequently the lurking places of pestilence. But it was not by such tidal agencies alone that the *fomes* of infection seemed to be conveyed to the shores; nor was it the fate of those alone to suffer who dwelt by the waterside.

On the evening of the 12th of July, we received from the No. 14 Oak-street, in the city of New-York, a marked case of yellow fever, the patient being far advanced in the stage of black vomit. This man died before morning, and as he was delirious

and nearly insensible when admitted, his history was unknown to us until I ascertained the following facts: The patient, a robust young Welshman, arrived from Tralee in Ireland, in the "Carioca" (?) on the 3d of July. The vessel was anchored at Quarantine, in the midst of the infected vessels then at anchor. The passengers remained on ship over night, and were subsequently taken to Castle Garden. This man took lodgings in the boarding house, where he subsequently sickened, in Oak-street. He had been very ill for nearly four days before he reached the Marine Hospital.

As no *fomites* of infection could reasonably be supposed to have reached No. 14 Oak-street at that early period, it is rational to conclude that in this first case of yellow fever in the city, the malady was contracted by the patient while he was remaining over night at the quarantine anchorage, the week previous to his illness.

July 14th, two cases of yellow fever were reported in the village, and one of them was admitted to the Marine Hospital. These persons had been engaged in unloading cargo from the "Giddon," "Eliza Jane," and other vessels anchored at Quarantine; and the man whom we admitted to hospital, had been seized with the fever on the evening of July 10th. This man died of black vomit a few hours subsequent to his arrival at the hospital, and the other died in like manner at his own residence. These were the first cases of yellow fever occurring among the stevedores employed at Quarantine.

July 15th, a lighterman who had been engaged for ten days in conveying cargoes from Quarantine to Atlantic dock, Brooklyn, was conveyed from the city to the Marine Hospital sick with yellow fever.

July 17th and 18th, arrived three vessels from St. Jago, St. Thomas, and Port au Prince, respectively, with cases of yellow fever on board; and on the 19th another stevedore was admitted to the hospital with the fever. On the 20th, arrived four vessels, upon each of which yellow fever had occurred on the passage, and from which four cases of that malady were admitted to the hospital.

July 21st, four colored stevedores were brought to the hospital, sick with yellow fever; and on the 22d, two quarantine light-

men were admitted from the city, and two stevedores from the village. This date, July 22d, marked an important epoch in the history of yellow fever at Quarantine. On this day the fever was announced as endemic within the Marine Hospital inclosure.

Previous to this date, five cases of yellow fever had occurred in dwellings on the beach $1\frac{1}{4}$ miles south of the hospital, and near Townsend's dock; but of these no public report had then been made. Also, on the Long Island shore directly opposite the Quarantine grounds six cases of yellow fever, and three deaths from black vomit had occurred between the 13th and 21st of July; and from the latter date the malady extended fearfully, until it had visited nearly every dwelling on the shore of the beautiful Bay Ridge; thirty cases and fifteen deaths having occurred in that district previous to August 1st, when first it was announced to the public that a pestilence existed there.

For the sake of brevity and completeness in the statements we would make respecting the arrival of infected vessels, or vessels from infected ports, and the occurrence of yellow fever among stevedores and lightermen, as well as the spread of infection to the shores, on either side of the quarantine anchorage, the following tabular arrangement of the facts is presented.

The accompanying map is designed to illustrate the topography of the late endemic of yellow fever, and show the relative positions of the present Quarantine station and the city of New-York and its environs.

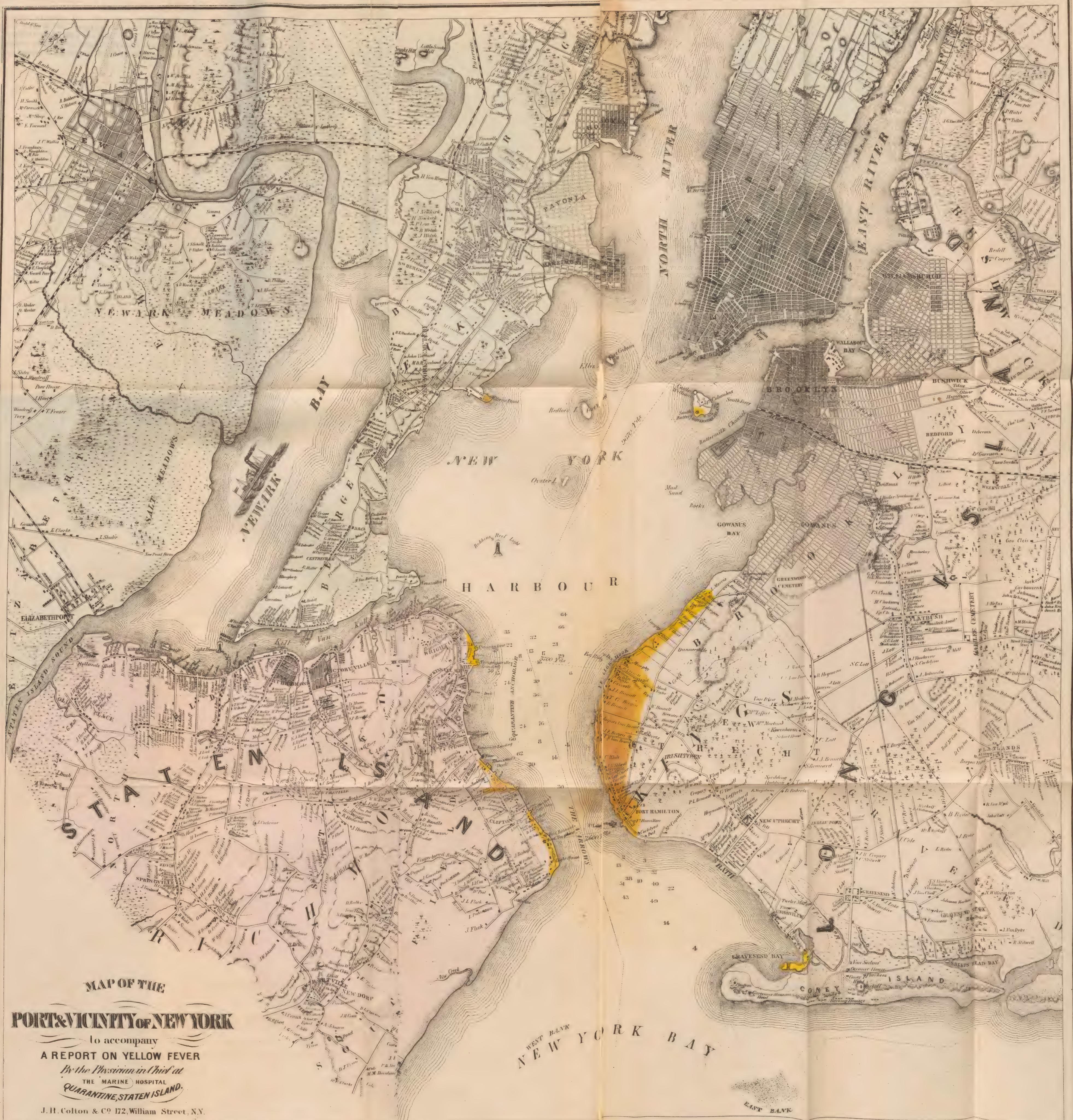
The figures in the bay and Narrows, near Quarantine, are designed to designate the location or anchorage of various infected or suspected vessels, by which the infection of yellow fever was imported, and from which the pestilence spread. It will be observed that in some instances the same vessel is designated as having been anchored both in the Narrows and at Gravesend Bay; e. g., No. 4, which designates the ship "Jane H. Gliddon," appears in the Narrows, nearly opposite Judge Rockwell's late residence, and also again in Gravesend bay, near to Coney Island.

It will be observed that the distances across the Narrows, from the Long Island to the Staten Island shores, are given, also the distance from Whitehall, in New-York city, to the Quarantine Hospital dock.

MAP OF THE CITY OF NEW YORK

to accompany
A REPORT ON YELLOW FEVER
By the Physician in Chief at
THE MARINE HOSPITAL
QUARANTINE, STATEN ISLAND.

J. H. Colton & Co. 172, William Street, N.Y.



The infected localities are designated by yellow coloring. The principal localities infected on the Staten Island shore, were the waterside of the Marine Hospital grounds, and a very narrow section extending from Wood Road in Clifton, to a short distance south of Fort Tompkins,—the most important point of this infected district being near the foot of Wood Road. It is not deemed expedient to designate localities presumed to have become infected in the cities of New-York and Brooklyn.

LIST OF INFECTED VESSELS

And vessels from Infected Ports, with cases of Yellow Fever during the voyage, in port, and on arrival.

No.	Date.	Names of Vessels.	Where from.	Cargo.	Died in port of clearance.	Left sick in port of clearance.	Died on passage.	Sick during passage.	Sent to hospital on day of arrt.	Sent to hospital subsequently.
1,	April 10,	T. Dexter,	Havana, Ponce, Porto Rico,	Sugar and molasses, do	4	1	1	1	1	1
2,	June 15,	Juliette Erkins,	St. Jago de Cuba,	Sugar, molasses & rags, do	1	2	3	3	3	3
3,	do 18,	Julia M. Hallock,	Havana,	Sugar and molasses, do	1	2	6	5	5	3
4,	do 21,	Jane H. Gliddon,	Trinidad de Cuba,	Sugar and molasses, do	1	1	1	1	1	1
5,	do 21,	Trinidad,	Havana,	Sugar and tobacco, do	1	1	1	1	1	1
6,	do 25,	Express,	St. Jago de Cuba,	Sugar, do	1	2	1	1	1	1
7,	July 1,	Bonito,	Cumberland Harbor,	Sugar, do	2	4	1	1	1	1
8,	do 1,	Baltic,	Havana,	Sugar and molasses, do	2	4	1	1	1	1
9,	do 2,	Eliza Jane,	Havana,	Sugar and molasses, do	3	1	1	1	1	1
10,	do 2,	Lillias,	St. Jago de Cuba,	do	2	1	1	1	1	1
11,	do 2,	Gladiator,	New Orleans & Havana,	Passengers and m'dise, do	1	1	1	1	1	1
12,	do 5,	Black Warrior,	Havana,	Sugar and molasses, do	3	2	2	2	2	2
13,	do 6,	Tropic Bird,	Matanzas,	do	2	7	2	2	2	2
14,	do 6,	Lady Franklin,	Cardenas,	do	1	1	1	1	1	1
15,	do 8,	Little Lizzie,	Trinidad de Cuba,	Molasses, do	3	3	3	3	3	3
16,	do 8,	Mary,	Ponce, Porto Rico,	do	3	3	3	3	3	3
17,	do 8,	Delta,	Trinidad de Cuba,	do	1	1	1	1	1	1
18,	do 8,	Almah,	Trinidad de Cuba,	do	1	1	1	1	1	1

19,	do	9,..	Ganges,	Sagua le Grande{ ^{via} Savannah,	Sugar and molasses,	1
20,	do	9,..	Broomie,	Havana,	do	2
21,	do	9,..	Colonist,	Ponce, Porto Rico,	Molasses,	1
22,	do	9,..	Escuriazo,	Havana,	Sugar and molasses,	1
23,	do	11,..	Agenoria,	St. Jago de Cuba,	Sugar,	1
24,	do	11,..	Queen of the South,	Rio Janeiro,	Coffee and spice,	3
25,	do	13,..	Twilight,	Guayama,	Sugar and molasses,	1
26,	do	13,..	Clara B. Williams,	Havana,	Tobacco and segars,	1
27,	do	13,..	Melusso,	Cardenas,	Sugar and molasses,	2
28,	do	15,..	Charles Thompson,	Matanzas,	do	1
29,	do	15,..	Crawford,	Ponce, Porto Rico,	do	5
30,	do	15,..	John Castner,	Trinidad de Cuba,	do	2
31,	do	15,..	Abby,	Gonaives,	Logwood and coffee,	1
32,	do	15,..	Fidelia H. Fanning,	Cardenas,	Sugar and molasses,	1
33,	do	15,..	Lodebor,	St. Jago de Cuba,	Sugar,	2
34,	do	15,..	Orizambo,	Gonaives,	Logwood,	all sick
35,	do	17,..	Thomas Watson,	Port au Prince,	do	1
36,	do	20,..	Leo,	Havana,	Sugar and tobacco,	1
37,	do	20,..	John Griffin,	Cienfuegos,	Sugar,	3
38,	do	20,..	Ocean Wave,	do	Sugar and molasses,	1
39,	do	20,..	Geo. Leslie,	do	do	2
40,	do	22,..	Larissa,	Rio Janeiro & Bermuda	do	3
41,	do	25,..	Ernestine Giddings,	Cardenas,	do	1
42,	do	25,..	Warwick,	Havana,	do	1
43,	do	30,..	Emily,	Turks Island,	Salt and logwood,	1
44,	do	31,..	Josiah Jax,	Ponce, Porto Rico,	Sugar and molasses,	1
45,	do	31,..	Juliana,	Trinidad de Cuba,	Sugar and hides,	2

LIST OF INFECTED VESSELS, &c.—(CONTINUED.)

66, Aug.	25,	Robert Dyer,	Gonaives,	Logwood,	1
67, do	25,	Talmadge,	Havana,	Sugar,	1
68, do	29,	Maxley,	Mobile,	Cotton and turpentine,	1
69, Sept.	1,	Schibboleth,	Santa Cruz,	Cedar and mahogany,	1
70, do	6,	Bueno Amo,	Laguayra,	Hides,	1
71, do	7,	Hanson Gregory,	Cienfuegos,	Sugar,	3
72, do	7,	Lucretia,	Gonaives,	Logwood,	1
73, do	7,	Baltimore,	Baltimore,	Wheat,	1
74, do	8,	Nancy Ann,	Crab Island,	Sugar and molasses,	1
75, do	18,	Lamartine,	Cardenas,	do	1
76, do	29,	Flash,	Vera Cruz,	Merch'dize and specie,	2
77, do	30,	New-York,	Charleston,	Naval stores,	2
78, do	30,	R. M. Charlton,	Havana,	Sugar, tobacco & segars,	3
79, Oct.	4,	Brothers,	Cienfuegos,	Sugar and molasses,	1
					3

LIST OF VICTIMS
Of Yellow Fever among residents of the Marine Hospital grounds.

No.	Date.	Employment.	Remarks.
1	June 24,..	Assistant physician,	Attending patients sick with yellow fever on board the "Julia M. Hallock."
2	July 22,..	Writer, &c.,	Resident on the bank, 60 yards W. from U. S. Government dock, and 30 yards W. of the beach.
3	do	22,.. Engineer of wash-house,	Resident on the bank, 130 yards of U. S. Government dock, and 30 yards off the beach, close by the N. wall.
4	do	23,.. Wife of do,	Confined to the house some time previous to attack.
5	do	23,.. Child of do,	Three years of age; had been with the father in the wash-house.
6	do	26,.. Infant of do,	Eight months old.
7	do	27,.. Wife of gate-keeper,	S. E. corner of grounds, 40 yards W. of bulkhead.
8	do	28,.. Servant and laundress,	Spent a night, July 22, at engineer's house, also part of the following day.
9	do	28,.. do	Spent two nights, July 22 and 23, at engineer's house; took ill immediately afterwards.
10	do	28,.. Nurse,	Leeched gate-keeper's wife; for two days attended upon her; had been by the waterside in the evening.
11	do	28,.. Assistant nurse,	Attended gate-keeper's wife for two days and two nights; had been by the waterside in the evening.
12	do	28,.. Laborer,	Had been engaged at the wash-house in receiving the dirty clothes of the vessels.
13	do	29,.. Deputy health officer,	Boarding the vessels both night and day.
14	do	29,.. Apothecary,	In the habit of bathing every evening at the Quarantine beach.
15	Aug.	3,.. Gate-keeper,	Attended his wife until she died; all the sailors, &c., going to the city had to pass him at the gate.

16,	do	5,..	Carpenter's wife,.....	Was in the habit of visiting the gate-keeper's wife; was attacked the day succeeding her confinement.
17,	do	5,..	Orderly,	In charge of one of the yellow fever wards; laid out the case No. 2.
18,	do	11,..	Assistant gate-keeper,.....	Was in constant attendance at the gate; slept at the gate-house, and frequently attended the gate-keeper.
19,	do	12,..	do	In charge of the gate after the gate-keeper's illness; previously employed in carrying the dead to the cemetery.
20,	do	16,..	Nurse,.....	Attending occasionally on patients sick with the epidemic; took sick immediately after confinement.
21,	do	27,..	Assistant cook,.....	In the habit of walking in the evenings on the beach.
22,	do	28,..	Watchman,	Watchman on the grounds; attending the gate at night; had charge of ventilation of infected baggage.
23,	Sept.	5,..	do	Successor to the deceased; in the open air by the waterside continually at night.
24,	do	5,..	Orderly,	Part of every night in attendance in the yellow fever wards.
25,	do	23,..	Assistant orderly,	Temporary assistant in the yellow fever wards.
26,	do	23,..	Nurse,	Became sick a few days after opening and cleaning the house of second case.
27,	do	27,..	Assistant nurse,.....	In one of the yellow fever wards; occasionally by the waterside.
28,	do	27,..	Orderly,	In charge of yellow fever wards.
29,	Oct.	1,..	勞工,	Variously exposed to sick persons and their baggage.
30,	do	3,..	Washerwoman,	Employed in washing infected clothing.
31,	do	5,..	Teamster,	Engaged in conveying the sick from the wharf to the different hospitals, and the dead to the cemetery.
32,	do	5,..	Nurse,	Attending some of the yellow fever cases.
33,	do	7,..	Washerwoman,	Wife of No. 24; engaged in the wash-house, and visiting her husband during his illness.

LIST OF CASES OF YELLOW FEVER

Occurring on Staten Island, in the villages of New Brighton, Tompkinsville, Stapleton and Clifton.

No.	Date of attack.	Names of persons.	Recovered.	Died.	Residence.
1	July 17,	Mrs. Havey,	Recovered.	July 29, Second house, Clifton dock.	
2	do 17,	Mrs. Silva,	do	Between Vanderbilt's and Townsend's docks.	
3	do 17,	Servant girl,	do	Vanderbilt's avenue.	
4	do 18,	Mr. Jacobson,	Recovered.	July 25, First house, Clifton dock.	
5	do 19,	Mr. Silva,	Recovered.	Between Vanderbilt's and Townsend's docks.	
6	do 22,	Mr. Swallow,	Recovered.	July 29, Row behind light-house.	
7	do 24,	Child (10 years),	Recovered.	July 29, Row behind light-house.	
8	do 25,	Lady,	do	Richmond-st., Tompkinsville, next door to Epis. church.	
9	do 28,	Boy (Leeland),	do	New Brighton, one-third of a mile N.W. of Quarantine.	
10	do 29,	Phillips,	do	Row behind light-house.	
11	do 30,		Recovered.	Aug. 2, Pavilion, one-third of a mile S.W. of Quarantine.	
12	do 30,	Boarders,	do	Beach, close to north wall of Quarantine.	
13	do 30,		do	do	
14	Aug. 2,	Lady,	do	Foot of Wood-road, Clifton.	
15	do 4,	Child of Mr. Silva,	do	Between Vanderbilt's and Townsend's docks.	
16	do 4,	do	do	do	
17	do 4,	do	do	do	
18	do 6,	Mrs. Neder,	do	Row behind light-house.	
19	do 7,	A cook,	Recovered.	Aug. 17, Foot of Wood road, Clifton.	
20	do 16,	Mrs. Neldinger,	do	Beach, close by Fort Richmond.	
21	do 17,	Lautenbach,	do	Rear of Quarantine.	
22	do 17,	Elissa McSlymon,	do	Sept. 4, At J. Aspinwall's, near the light-house.	

23,	do	18,	Mr. Iken,	Recovered.	Wood-road, W. of N. Y. avenue.
24,	do	18,	A gentleman,	do	Between Clifton and Townsend's docks.
25,	do	19,	Mr. Darby,	do	Aug. 26, Northeast of Townsend's dock.
26,	do	19,	Son of Mr. Silva,	do	do 25, Between Vanderbilt's and Townsend's docks.
27,	do	20,	Mr. Schneider,	Recovered.	Brewster-street, Stapleton.
28,	do	21,	Goblet,	do	Wood road, above No. 18.
29,	do	21,	Cook of No. 24,	do	Ang. 25, Between Clifton dock and Townsend.
30,	do	28,	Mr. O'Connor,	Recovered.	Corner of Wood-road and N. Y. avenue.
31,	do	28,	Mr. Brennen,	do	do do
32,	Oct.	4,	Gustav. Graesle,	Oct.	5, Stapleton dock.
33,	do	8,	Old resident,	do	12, Near Quarantine.

REMARKS.

No. 1. Was often on shore at the beach, bathing children, and washing.

No. 2. Had not left the house two months previous to her illness.

No. 3. Residing near, and had visited the foot of Wood-road.

No. 4. Dwelling near the beach; had been fishing the day previous to his attack.

No. 5. Dwelling very near the beach.

No. 6. Had been on the beach previous to her attack.

No. 7. Was often near the Quarantine landing, and had visited an officer's family.

No. 8. Had not left her house for several weeks previous to attack.

No. 10. Was in the habit of bathing with apothecary of hospital, who sickened and died the same day as this man.

Nos. 11, 12 and 13. Bathing in the bay 100 yards N.W. of U. S. Govt. dock.

Nos. 15, 16 and 17. Were often on the beach, and with their father, by the waterside.

No. 18. Visited Mr. Swallow when sick.

No. 19. Constantly near the beach.

No. 21. Runner—visiting the vessels.

No. 22. Residing and bathing east of J. Aspinwall's residence.

No. 23. Returned from a hearty supper, at midnight, by the Shore-road; was taken sick the following day.

No. 24. Dwelling near the water.

No. 25. House fronted the water; he occasionally went out in boats.

No. 26. Was much on the water near the infected vessels.

No. 27. Had passed Quarantine on the water at night.

No. 28. Working on the Shore-road.

No. 29. Attended in sick room occasionally, and was otherwise exposed.

No. 30 and 31. Both gentlemen, during the week, resided in the city; came to the island Saturday evening; Sunday, spent the greater part of the afternoon on the roof of a new house 140 feet off shore.

No. 32. Carrier of bread to the light-house and other places.

CASES OF YELLOW FEVER

Occurring on the Long Island shore of the bay, at Fort Hamilton, Bay Ridge, and Gowanus.

No.	Names.	Date of attack.	Date of recovery.	Date of death.	Residence.
1	Henry Houtbush, (?)	July 13,		July 19,	M. Bergen's, (T. Hunt.)
2	Jacob Houtbush,	do 13,		do 20,	do (See map.)
3	John Brooks,	do 14,		do 21,	Robert Roberts.
4	Wm. Scott,	do 29,		do	A. N. Van Brunt's.
5	Wm. Scott's wife,	do 20,		do	do
6	do child,	do 21,		do	do
7	W. H. Rockwell,	do 24,		July 26,	Opposite Quarantine anchorage.
8	Phebe Bergen,	do 24,		do 31,	Forty-sixth street, near the shore.
9	Margaret L. Boyle,	do 24,		do 30,	Bay ridge.
10	John V. Bergen,	do 21,		do 30,	Forty-sixth street.
11	Frenchman,	do 25,		do 28,	Beach, below M. Bergen.
12	Mrs. Martin Doyle,	do 25,		do 28,	Beach, below Chandler White.
13	Henry Byrns,	do 25,	August 2,	do	Beach, below J. Bergen.
14	Chandler White,	do 26,		August 8,	Narrows, opposite Quarantine anchorage.
15	Alexandrine Stanton	do 27,	August 2,	do	General Stanton's, Fort Hamilton.
16	Jacob,	do 27,		do	M. Bergen's servant.
17	Mrs. Speran,	do 27,		August 2,	General Stanton's beach.
18	Ralph Bullock,	do 27,	August 5,	do	do
19	Sarah V. D. Bergen,	do 28,		August 5,	Daughter of T. V. Bergen.
20	Mr. Pope's child,	do 28,		do 7,	Third Avenue, near Bay ridge dock.
21	Mrs. Stillwell,	do 28,		do 3,	River road house.
22	Sarah Wardell,	do 28,		do	Third house S. W. of Bay ridge dock.

CASES OF YELLOW FEVER.—(CONTINUED.)

No.	Names.	Date of attack.	Date of recovery	Date of death.	Residence.
23	Ann Amelia Wardell,	July 28,			Third house S. W. of Bay-ridge dock.
24	General H. Stanton,	do 29,		August 1,	Fort Hamilton.
25	John Hicks,	do 29,			Corner of Third-avenue and Bay ridge dock.
26	Stephen Dutch,	do 29,			M. Bergen's servant.
27	Jacob,	do 30,			Fourth house S. W. of Bay ridge dock.
28	Gertrude Boyle,	do 30,			Head of lane of Bay ridge dock.
29	Miss Stillwell,	do 30,			General Stanton's family.
30	Mrs. Mary Macourt,	do 30,			Third house S. W. of Bay ridge dock.
31	Henry Wardell,	Aug. 1,			Second
32	Anna Wardell,	do 1,			do
33	George Wardell,	do 1,			do
34	Freeman Wardell,	do 1,			do
35	Peter Skiffington,	do 2,	Aug. 10,		General Stanton's house.
36	Miss Livingston,	do 2,	do 19,		Mr. Berrier's house.
37	Sarah Byrns,	do 2,	do 23,		Beach, below J. Bergen.
38	Andrew H. Powell,	do 4,		August 8,	Mr. Berrier's house.
39	Emma Wardell,	do 4,			Second house S. W. of Bay ridge dock.
40	Mrs. John Courtney,	do 4,	Aug. 25,		House of R. Roberts.
41	Wm. Bullock,	do 5,	do 12,		General Stanton's beach.
42	Miss Mellis,	do 5,			Fort Hamilton village.
43	Miss Wanzer,	do 5,			Aug. 10; Bath; had been at Bay ridge.
44	John Lake,	do 6,	do 13,		Below Mr. Princes'.
45	Ann Lott,	do 6,	do 14,		Sister of Mr. Van Brunt.

46, Casanda Meyers,	do	6, Aug. 17,	Daughter of N. Boyle.
47, Mr. Bullock,	do	7, Aug. 15,	Third avenue, Bay ridge.
48, Nathaniel Boyle,	do	7, Aug. 12,	Bay ridge, fourth house below dock.
49, Charles Prince,	do	8, Aug. 17,	Bay ridge dock.
50, Margaret M. Bergen,	do	8, do 13,	Daughter of J. V. Bergen.
51, Wm. Doyle,	do	8,	Fourth house from Bay ridge dock.
52, Mary Byrns,	do	9, Aug. 20,	Beach, below J. Bergen.
53, George Ross,	do	9, Aug. 20,	House of R. Roberts.
54, Anna Wardell,	do	10, Aug. 18,	Second house S. W. of Bay ridge dock.
55, F. E. Bern,	do	11, Aug. 19,	General Stanton's.
56, Michael Bergen,	do	12,	Son of Lefferts Bergen.
57, Theodore Bergen,	do	12,	Son of J. V. Bergen.
58, Levina M. Boyle,	do	12,	Daughter of N. Boyle.
59, Jacob Meyers,	do	12,	Son-in-law of N. Boyle.
60, Martha Wardell,	do	12,	Second house S. W. of Bay ridge dock.
61, Ida Bergen,	do	13,	Wife of Isaac Bergen.
62, Margaret Condon,	do	13,	Near Bay ridge dock.
63, Anna Herkey,	do	14,	On Van Brunt's estate.
64, Mrs. Sarah Berrier,	do	14, Aug. 21,	Village, Fort Hamilton.
65, John D. Bergen,	do	14,	J. Bergen's, Jr., Forty-second street.
66, Lefferts Bergen,	do	15,	do 22, Forty-sixth street, near the beach.
67, George Wardell,	do	15,	Second house S. W. of Bay ridge dock.
68, Barlow Wardell,	do	16,	do
69, Sarah Wardell,	do	16,	do
70, Mrs. Cropsey,	do	16,	Lane of Bay ridge dock.
71, Catharina Hurley,	do	18,	do
72, Brady,	do	19, Sept. 5,	One-quarter mile S. of the fort.

CASES OF YELLOW FEVER.—(CONTINUED.)

No.	Names.	Date of attack.	Date of recovery.	Date of death.	Residence.
73	A woman,	Aug. 19,	Sept. 1,	Aug. 30,	One-quarter mile S. of the fort.
74	Mrs. W. Gardiner,	do 19,	do 30,	do 22,	Wife of M. M. Gardiner.
75	Johanna Tracy,	do 19,	do 22,	do 22,	Servant of Mr. Cumming.
76	Charles Van Brunt,	do 19,	Sept. 8,	do 24,	A. N. Van Brunt's.
77	Philip Tully,	do 20,	do 24,	do 24,	Beach, S. Berrier's house.
78	John McNab,	do 20,	do 24,	do 24,	Mr. Bullock's bath-house.
79	John Becker,	do 20,	Aug. 29,	do 29,	Mr. Wm. Sears.
80	John Hicks (colored),	do 20,	do 29,	do 29,	Beach, below J. S. Bennett.
81	James McKnight,	do 21,	Sept. 20,	do 20,	Village, Fort Hamilton.
82	Charles C. Prince,	do 21,	do 25,	do 25,	Bay ridge, near dock.
83	Robert C. Cunningham,	do 22,	do 26,	do 26,	Narrows.
84	L. W. Cunningham,	do 22,	do 26,	do 26,	do
85	Margaret Ross,	do 22,	Aug. 31,	do 31,	Village, Fort Hamilton.
86	Mr. Behringer,	do 22,	do 29,	do 29,	Irishtown.
87	Ann Burns,	do 22,	Sept. 10,	do 10,	Beach, below J. Bergen.
88	Mrs. Sinot,	do 23,	do 23,	Sept. 5,	Fourth house of Bay ridge dock.
89	Sarah Byrns,	do 23,	do 23,	do 23,	Beach, below J. Bergen.
90	Stephen Green,	do 24,	Sept. 9,	do 30,	Hospital.
91	Hiram Green,	do 24,	do 30,	do 31,	do
92	Julia Kennedy,	do 24,	do 31,	do 16,	Beach, below R. Bennett.
93	Mrs. McGrath,	do 8,	do 8,	do 8,	Gowanus, Forty-second street.
94	Thomas Little,	do 25,	Sept. 15,	do 15,	Beach, below Mr. Berrier.

95	Ann Doyle,	do	26,	do	6,	Mr. Cumming's.
96	Wm. Clark,	do	26,	Aug. 31,	Beach, below R. Bennett.	
97	John Saffir,	do	27,	Sept. 2,	Beach, below J. S. Bennett.	
98	Mrs. T. Bergen, jr.,	do	28,	do 2,	Gowanus, Forty-second street.	
99	Mary Little,	do	29,	Sept. 15,	do	
100	Sybill Wardell,	do	30,	Sept. 15,	do	
101	Louisa Ross,	do	31,	Sept. 8,	Third house S. W. of Bay ridge dock.	
102	Ann Mooney,	do	1,	Oct. 24,	Village, Fort Hamilton.	
103	J. Bergen, jr.,	do	1,	Sept. 5,	do	
104	Mrs. J. Smyth,	do	1,	Sept. 5,	do	
105	Mr. Jordan,	do	3,	Sept. 8,	Gowanus, Forty-second street.	
106	Mrs. Benney,	do	4,	do 9,	Irishtown.	
107	Patrick Donnelly,	do	4,	do 8,	do	
108	Mina Ehrhardt,	do	4,	do 8,	do	
109	Mrs. Killroy,	do	4,	do 10,	Hospital.	
110	Thomas Holden,	do	7,	do 12,	Near Third-avenue.	
111	Sarah White,	do	7,	do 12,	Irishtown.	
112	Jacob Bergen,	do	8,	Sept. 11,	Sister of Chandler White.	
113	Philip Frank,	do	9,	do 15,	Son of J. V. Bergen.	
114	Dr. James Dubois,	do	9,	Sept. 13,	Gardener of Wm. Sears.	
115	Dr. F. L. Crane,	do	10,	do 16,	New Utrecht, { Attending all the Bergen fa-	
116	Henry Lawrence,	do	10,	do 16,	{ milies; opposite Quarantine.	
117	Sarah Lawrence,	do	10,	do 19,	Partridge's mill, Gravesend.	
118	Ann Cogan,	do	11,	do 19,	do	
119	Bridget Hogan,	do	16,	do 21,	Servant, corner of Steward's avenue.	
120	Abby Mahan,	do	16,	Sept. 24,	Atlantic-street and Third-avenue.	

CASES OF YELLOW FEVER.—(CONTINUED.)

No.	Name.	Date of attack.	Date of recovery.	Date of death.	Residence.
121	Mrs. McDonald,	Aug. 16,	Oct. 3,	Beach, below Mr. Berrier.	
122	John Woods,	do 16,	Sept. 22,	Mr. Church's, Fort Hamilton.	
123	Charles E. Sears,	do 16,	Oct. 2,	Wm. S. Sears', do	
124	Dr. Bailey,	do 16,	do 6,	Physician to do	
125	Mr. Coulon,	do	do 2,	Beach, below Mr. Clapp, Fort Hamilton.	
126	Peter Kelly,	do 18,	Sept. 29,	Wm. S. Sears' servant.	
127	Ann Suffo,	do 19,	do 30,	Beach, below R. S. Bennett.	
128	Sarah Ross,	do 19,	Oct. 1,	Village, Fort Hamilton.	
129	Margaret Martin,	do 20,	do 2,	Mrs. Oliver's servant.	
130	James McGuire,	do 20,	Sept. 22,	House of Mr. Clapp.	
131	Freiderich Haltelus,	do 21,	do 25,	Servant of L. Bergen.	
132	Thomas Coulon,	do 21,	do	Beach, below Mr. Clapp.	
133	Bridget Coulan,	do 22,	do 3,	do do	
134	Thos. McDonald,	do 24,	do 17,	Beach, below Mr. Berrier.	
135	Margaret Pender,	do 24,	Sept. 29,	House of Chandler White.	
136	Mr. Tully,	do 28,	Oct. 7,	At Mr. Gordon's house.	
137	Mrs. McIntyre,	do 29,	do 9,	At Mr. Cumming's house.	
138	Mrs. Catharine Coyle,	do 29,	Oct. 5,	At Mr. Gordon's house.	
139	Arthur Burns,	do 31,	do 4,	Beach, below R. Bennett.	
140	Frank Burns,	Oct. 3,	Oct. 10,	Foot of Stewards-avenue.	
141	Florida Ross,	do 4,	do 10,	Village, Fort Hamilton.	
142	Margaret Dunn,	do 5,	do 15,	Hospital of Relief Society.	

143	Mrs. Haight,.....	do	6,..	do	22,.....	Albert Van Brunt's house.
144	Hannah Weeks,.....	do	11,..	do	30,.....	Foot of Lane to Bay-ridge dock.
145	Mary Hicks,.....	do	12,..	do	24,.....	Beach, below J. S. Bennett.
146	Susan Gowdy,.....	do	16,..	do	30,.....	Mr. Bullock's servant.
147	Mrs. Brennan,	do	19,..	do	28,.....	Beach, below J. S. Bennett.

As the history of each one of the cases here recorded is intimately and individually connected with some one of the important facts and events of the endemic, and as the death-mark of the pestilence was inscribed on almost every dwelling by the waterside, from Greenwood to Fort Hamilton, we have thought best, for the sake of brevity and definiteness, to give the names and residences of the victims of the fever in that ill-fated district.

5. By referring to the map in connection with the statements made in the foregoing table, the reader may readily associate the topography with the chronology of the endemic, both of which we have taken much pains to give with perfect correctness.

Those transient residents in this district, who sickened with the fever previous to the establishment of the Relief Society's Hospital, and were, therefore, conveyed to the Kings County Hospital, are not mentioned in the foregoing table, but will be found duly recorded in the general summary. The thirty-one cases which occurred in the garrison at Fort Hamilton, are also recorded only in the summary, where a separate statement respecting them is made.

A CHRONOLOGICAL SUMMARY OF THE CASES OF YELLOW FEVER,

As they occurred during the Summer and Autumn of 1856, in the Port and vicinity of New-York.

DATE.	Direct from vessels.	Indirect from vessels.	Steveadores from city.	Steveadores from village.	Residents on qua- rrantine grounds.	Other residents of Staten Island.	Residents of New York.
April 10,	1	3	1	1	1	1	1
June 18,	5	5	1	1	1	1	1
do 21,			1	1	1	1	1
do 24,			1	1	1	1	1
do 29,			1	1	1	1	1
do 1,			1	1	1	1	1
do 2,			1	1	1	1	1
do 3,			1	1	1	1	1
do 5,			1	1	1	1	1
do 7,			1	1	1	1	1
do 8,			1	1	1	1	1
do 9,			1	1	1	1	1
do 12,			1	1	1	1	1
do 13,			1	1	1	1	1
do 14,			1	1	1	1	1
do 15,			1	1	1	1	1
do 16,			1	1	1	1	1
do 17,			1	1	1	1	1

YELLOW FEVER.—(CONTINUED.)

YELLOW FEVER.—(CONTINUED.)

DATE.

In the foregoing summary we have recorded five hundred and thirty-five cases, and adding three cases that occurred among patients convalescent from other diseases, in the Marine Hospital, we find the total number of well-authenticated cases of yellow fever occurring in the various localities in the vicinity of the port of New-York during the past summer and autumn, as ascertained by the most rigid investigation, was *five hundred and thirty-eight*. More than one-third of this number died of black vomit; and to show that the number of cases recorded as having occurred in the cities of New-York and Brooklyn are probably incomplete, and estimated below the actual number which occurred, I would state that more than three-fourths of the seventy five cases recorded in the summary died of black vomit. Of the twenty-four cases of yellow fever which were conveyed from the city of Brooklyn to the Kings County Hospital, six recovered and eighteen died—a large proportion of the latter number being in a dying condition when removed to the hospital. Of the twenty-nine cases recorded as occurring in Brooklyn, seven were persons resident in the eastern district of that city, (formerly Williamsburgh,) and twenty-two were residents of the city of Brooklyn proper, which is the western district. The origin of a large proportion of these cases was traced directly to infected places and infected goods.

Other cases of yellow fever occurred in Brooklyn, of which I have obtained no record sufficiently authentic for publication. Though there is good evidence that the infection of yellow fever reached certain points in both the cities of New-York and Brooklyn, it is not possible for us to define the exact limit of such localities.

It is proper that special mention should be made of the endemic of yellow fever which was experienced in the garrison on Governor's Island. The first occurred July 29th, and the malady continued to prevail quite steadily until the 10th of September. Though a very large number of cases occurred in that military command, the victims were selected exclusively from the south battery, which has a southerly and easterly exposure. By reference to the map the reader will observe the

relation which the south battery of Governor's Island sustains to the Atlantic stores and docks, as well as to the Quarantine anchorage. The officers of the command at that station assure me that no *material* cause of infection was conveyed to or existed upon Governor's Island.

In another section of this report, further remarks will be found respecting the various infected localities.

METEOROLOGICAL REGISTER.

[Station, Fort Hamilton, New-York. Latitude, $40^{\circ} 43'$ north; Longitude, $74^{\circ} 1'$ west.]

MONTH.	THERMOMETER.			HYGRO-METER.			WINDS.			WEATHER.			
	7 A.M.	2 P.M.	9 P.M.	Daily mean.	D.*	F.†	D.	F.	D.	F.	7 A.M.	2 P.M.	9 P.M.
June 15, 1856.	70	75	64	69.66	65.33	N. W.	1 N. W.	2 N. W.	2 N. W.	2	F. 4	C. 5	
do 16, .	70	73	63	68.66	66.33	N. W.	1 N. W.	2 N. W.	2 N. W.	2	F. 4	F. 4	
do 17, .	72	75	67	71.33	66.66	N. W.	2 N. W.	2 N. W.	2 N. W.	1	F. 4	C. 4	
do 18, .	63	63	63	63	62	S. W.	3 S. W.	2 S. W.	2 S. W.	1	C. 4	C. 4	
do 19, .	63	80	68	70.33	67.66	S. W.	1 S. W.	2 S. W.	2 S. W.	1	C. 4	C. 4	
do 20, .	75	86	73	78	73	S. W.	1 S. W.	1 S. W.	1 S. W.	1	F. 4	F. 4	
do 21, .	90	92	80	87.33	81	S. W.	1 S. W.	1 S. W.	1 S. W.	1	F. 4	F. 4	
do 22, .	..	83	97	78	86	82.66	S. W.	1 N. W.	1 N. W.	2	C. 4	C. 4	
do 23, .	..	77	77	65	73	70.33	N. W.	1 S. E.	2 S. E.	2	C. 4	C. 4	
do 24, .	..	68	72	65	68.33	65.33	S. W.	2 S. W.	3 S. W.	2	C. 4	C. 4	
do 25, .	..	70	68	67	68.33	65.33	S. W.	1 S. W.	2 S. W.	1	C. 4	C. 4	
do 26, .	..	71	78	70	73	71	W.	2 W.	2 S. W.	1	F. 4	F. 4	
do 27, .	..	79	85	72	78.66	75	75	73	71	W.	1 N. W.	1 N. W.	
do 28, .	..	75	75	75	75	75	75	73	71	W.	2 N. W.	1 N. W.	
do 29, .	..	83	94	83	86.66	80	W.	2 W.	2 S. W.	1	F. 4	F. 4	
do 30, .	..	86	95	83	88	80	S. W.	1 S. W.	2 N. W.	2	F. 4	F. 4	
July 1, .	..	72	84	71	75.66	67	N. W.	2 N. W.	2 N. W.	1	F. 4	F. 4	
do 2, .	..	74	71	71	71.66	66.33	S. W.	2 S. W.	2 S. W.	3	F. 4	C. 4	

METEOROLOGICAL REGISTER.—(CONTINUED.)

1856.	MONTH.	THERMOMETER.			HYGRO-METER.			WINDS.			WEATHER.		
		7 A.M.	2 P.M.	9 P.M.	Daily mean.	Daily mean.	D.	F.	D.	F.	D.	F.	C.
July	3,..	72	69	72	69	69	S. W.	2 S. W.	2 S. W.	2 S. W.	1 F.	F.	C.
do	4,..	70	75	68	71	68	S. W.	1 N. E.	1 N. E.	1 N. E.	1 C.	F.	F.
do	5,..	72	73	70	71	66	66 N.	2 N. W.	2 N. W.	2 N. W.	1 F.	C.	F.
do	6,..	80	75	69	74	66	70 N.	2 S. W.	2 S. W.	2 S. W.	2 F.	F.	F.
do	7,..	70	75	68	71	67	33 N.	2 N.	2 S. W.	2 S. W.	1 F.	C.	C.
do	8,..	69	69	68	68	66	67 S. W.	1 S. E.	1 S. E.	1 S. E.	1 C.	C.	C.
do	9,..	67	68	65	66	66	65 S.	1 S. W.	1 S. W.	1 S. W.	1 C.	C.	C.
do	10,..	66	75	65	68	66	65 S. S.	1 S. W.	1 S. W.	1 S. W.	1 C.	C.	C.
do	11,..	65	71	68	68	66	66 S.	1 S. E.	2 S. E.	2 S. E.	1 C.	F.	F.
do	12,..	65	83	73	73	66	70 N.	1 N. W.	2 N. W.	2 N. W.	1 F.	F.	F.
do	13,..	76	80	74	76	66	75 S. W.	1 S. W.	2 S. W.	2 S. W.	1 F.	F.	F.
do	14,..	70	82	76	76	76	74 S. S. W.	1 S. W.	1 S. W.	1 S. W.	1 S. W.	W.	W.
do	15,..	79	90	77	82	77	76 S. W.	1 S. W.	2 W.	2 W.	1 S. W.	W.	W.
do	16,..	80	85	76	80	80	33 S. W.	1 S. W.	1 S. W.	1 S. W.	1 S. W.	W.	W.
do	17,..	79	94	81	81	66	79 N.	33 S. W.	33 S. W.	33 S. W.	1 S. W.	W.	W.
do	18,..	81	99	83	88	66	79 N.	66 N.	66 N.	66 N.	2 N. W.	W.	W.
do	19,..	80	70	70	73	33	70 N.	33 N.	33 N.	33 N.	2 N. W.	W.	W.
do	20,..	80	85	80	81	66	74 N.	66 N.	66 N.	66 N.	3 N. W.	W.	W.
do	21,..	82	77	33	77	66	74 N.	66 N.	66 N.	66 N.	2 S. W.	W.	W.

METEOROLOGICAL REGISTER.—(CONTINUED.)

MONTHS.	THERMOMETER.			HYGRO-METER.			WINDS.			WEATHER.		
	7 A.M. 2 P.M. 9 P.M.			Daily mean.			7 A.M. 2 P.M. 9 P.M.			7 A.M. 2 P.M. 9 P.M.		
	7	2	9	D.	F.	D.	D.	F.	D.	F.	C.	C.
Aug. 18, ..	72	71	68	70.33	66.66	N. S.	2	N. S.E.	2	F.	F.	C.
do 19, ..	69	68	69	68.66	67	2 S.E.	5	S.E.	7	C.	C.	C.
do 20, ..	69	71	68	69.33	68	3 N. W.	3 N. W.	W.	2	C.	C.	C.
do 21, ..	64	70	66	66.66	63.66	N. W.	2	N.	1	C.	F.	F.
do 22, ..	66	74	68	69.33	65	N. W.	2	N. W.	2	F.	F.	F.
do 23, ..	73	69	70	74	70.33	S. W.	1	S. W.	2	F.	F.	F.
do 24, ..	75	83	82	76.66	72	S. W.	2	N. W.	2	F.	F.	F.
do 25, ..	72	81	68	73.66	69.66	N. W.	2	N. W.	2	F.	F.	F.
do 26, ..	67	81	67	71.66	68	N. W.	3	N. W.	2	F.	F.	C.
do 27, ..	69	83	70	74	70.66	S. W.	2	S. W.	3	S. W.	2	C.
do 28, ..	67	72	71	70	67.33	S. W.	2	S. W.	4	S. W.	2	C.
do 29, ..	70	77	73	73.33	72	S. W.	2	S. W.	4	S. W.	1	C.
do 30, ..	69	73	70	70.66	67.33	S. E.	2	S. E.	2	S. E.	2	C.
do 31, ..	67	75	71	71	68.33	S. E.	2	S. E.	2	S. E.	1	F.
Sept. 1, ..	66	65	61	64	60	E.	3	E.	2	N. E.	1	N. E.
do 2, ..	64	67	60	63.66	57	N. E.	2	N. E.	2	N. E.	1	N. E.
do 3, ..	66	71	65	67.33	64.33	N. E.	2	N. E.	1	N. W.	1	W.
do 4, ..	67	73	68	69.33	65.66	N. W.	1	N. W.	2	W.	1	W.
do 5, ..	70	79	73	69.33	S. E.							

do	6,	71.66	69.33	N.	W.	2	W.
do	7,	71.66	73	S.	W.	2	S. W.
do	8,	71.66	71	S. E.	1	S.	3
do	9,	71.66	73	S. E.	2	S. E.	3
do	10,	71.66	70	S. E.	1	S. E.	1
do	11,	71.66	70	S. E.	2	S. E.	3
do	12,	71.66	73	S. E.	3	S. E.	3
do	13,	71.66	78	S. E.	2	S. E.	3
do	14,	71.66	69	S. E.	1	S. E.	1
do	15,	71.66	78	S. E.	2	S. E.	3

• D. Direction.

† F. Force.

‡ Fair.

§ Cloudy.

In the foregoing tables are stated as many facts as can conveniently be condensed in such forms, and it is believed that the immense labor which the compilation has cost has not been without an adequate reward as regards the accuracy and definiteness of results.

The remarks which it is necessary to make in explanation of each table and of particular statements, will be as brief as the subject will allow.

The Vessels and their Cargoes.

It is not supposed that every vessel mentioned in the list was infected, and it is by no means certain that every case of sickness reported as having occurred on these vessels previous to arrival was yellow fever. But the history of all this number is so inseparably connected with the account which we have undertaken to give of the late visitation of yellow fever, that it is highly important that all the facts should be presented, so far as they may have any direct bearing upon the events which marked the spread of pestilence to the shores opposite the Quarantine anchorage.

In addition to the remarks already made respecting particular vessels which are believed to have been infected, I will add the following brief explanatory remarks which are called for in connection with the statements made in the tables.

Notes.

- No. 1. The patient contracted the fever at Havana.
- No. 2. The vessel sent to Gravesend, July 3d; discharged at Gravesend bay.
- No. 3. Vessel sent to Gravesend bay, discharged cargo immediately, which was landed at pier No. 6, N. R.; none of the stevedores sickened.
- No. 4. The "Gliddon" began to discharge cargo early in July, and was at first near the middle of the channel, but drifted to the Long Island shore, towards the residence of Mr. Chandler White, as indicated on the map, and was within 500 yards of the beach. The work of discharging was continued at intervals until after the 20th of July, when the work was suspended on account of the fearful spread of yellow fever among her stevedores, about twenty of whom were admitted to

Marine Hospital. On the 7th of July the cabin-boy of the ship was admitted to the hospital with black vomit, and on the 14th the first stevedore was admitted and died on the same evening. These were among the early proofs of the infected character of the vessel. July 26. This vessel, with several others, were removed to Gravesend bay, and subsequently to the S. W. Spit. One of the officers of this vessel informed me that when lying near Bay Ridge early in July, there were frequent attempts to hold communication with the ship on the part of unknown persons, supposed to be from vicinity.

- No. 5. Went to city early in July with cargo.
- No. 6. Discharged cargo at Quarantine; entered Atlantic dock August 4th..
- No. 7. Discharged cargo at Quarantine July 14th-24th.
- No. 8. Sent to Gravesend bay July 3d; discharged cargo July 14th.
- No. 9. Sent to Gravesend bay July 3d; discharged at Gravesend July 15th.
- No. 10. Sent to Gravesend bay July 3d; discharged at Gravesend bay July 14th-21st.
- No. 11. Discharged at Quarantine.
- No. 12. The sick passenger from the steamer "Black Warrior," from Havana, became ill on the first day from port, had remained over night on shore at Havana.
- No. 13. Sent to Gravesend bay July 8th; discharged there July 12th-13th..
- No. 14. The "Lady Franklin" was some two weeks from Matanzas, which port was beginning to be sickly before the date of her departure. The captain, a very intelligent gentleman, informed me that the town of Matanzas was perfectly healthy at the time of his arrival, and that the first cases of yellow fever were brought thither by vessels from St. Jago and Havana, ten days after which the malady began to spread to other vessels and to the city. The "L. F." was bound to Trieste, and having been spoken in distress at sea by one of our steamers, her arrival at Quarantine was watched with anxiety. She arrived on the night of July 6th, and was immediately visited by my assistant, with medicines and ice; all hands were sick and one

was dying. The captain and his lady were immediately removed to the hospital. July 28th, this vessel was removed to Gravesend, where part of her cargo was discharged. August 8th, her ship-keeper was admitted to hospital with yellow fever in its most malignant form; this man had remained very constantly on board the vessel for several weeks.

No. 15. Discharged at Quarantine (and Gravesend bay) July 18th and 19th.

No. 16. Discharged at Atlantic dock August 6th.

No. 17. Discharged cargo in city after thirty days Quarantine.

No. 18. Discharged cargo in city after thirty days Quarantine.

No. 19. The captain of the "Ganges," having been admitted to Marine Hospital July 22d, from the New-York City Hospital, whither he was conveyed from Brooklyn after his fever had reached the stage black vomit, the health officer was immediately informed of the circumstance, and by his order the vessel was brought at once to the Quarantine anchorage. The "Ganges" sailed from Sagua la Grande early in May, and put into Savannah for repairs, at which port she lay for about five weeks. She arrived at the port of New-York July 9th, and three or four days subsequently commenced discharging her cargo at the North Atlantic dock, Brooklyn. The captain superintended the unlading, and was almost constantly in and about the ship or the warehouse. He boarded and slept at a house very near the dock; became ill on the 18th and died of black vomit on the 25th. As it would seem highly improbable that this vessel could have been infected, both Sagua la Grande and Savannah being free from yellow fever at the time the "Ganges" was at those ports, it is rational to conclude that the captain contracted the malady either at the Brooklyn warehouses or at Quarantine.

No. 20. Discharged at Quarantine, (and Gravesend bay,) sent to Gravesend.

No. 22. Discharged cargo at Quarantine, sent to Gravesend, July 31st.

No. 23. Discharged cargo at Quarantine, cleared thirty days after arrival.

No. 24. Discharged cargo at Quarantine, cleared thirty days after arrival.

No. 25. The "Twilight" arrived from Guayama July 13th, and discharged about half her cargo at or near the foot of Broom-street, East-river, previous to the 22d, when she was ordered back to Quarantine on account of a case of black vomit having been brought to Marine Hospital from that vessel on the evening of the 22d. Though we could obtain but little information of the patient, it appears by no means certain that the "Twilight" was an infected vessel.

No. 28. Discharged cargo at Quarantine July 30th, August 1st, 5th and 7th.

No. 29. July 25th we received from the city two cases of yellow fever, one with black vomit and the other in an earlier stage of the malady. The latter was the master of the "Cidon," an African trader, some weeks in port. Returning from the State of Maine about the 15th of July, he prepared his vessel for a voyage, and hired as first mate a seaman from the "Crawford," just arrived from Ponce, P. R. This man was permitted to place his bag of "dunnage" under the berth in which the captain slept the first night which the mate slept on board, which was about the 17th of July. This young man was observed to be ill on the evening of the 18th; on the 22d the captain sickened, and on the 25th both were brought to the Marine Hospital. July 28th and 29th were received four cases of yellow fever from the "Crawford," which had at that time just completed the discharge of her cargo at pier No. 10 East river. As these four persons had remained by the vessel since her arrival, and had slept on board, it was rational to conclude that they had contracted the fever from infection which inhered in the cargo of their vessel. But there had been no sickness on board during the voyage from Ponce, and that port at the time of their departure was not reported as "sickly."

No. 30. Discharged cargo at Quarantine July 21st-31st.

No. 31. Discharged cargo at Quarantine July 24th and 25th.

No. 32. Discharged cargo at Quarantine.

No. 33. Discharged cargo at Quarantine.

No. 34. Discharged cargo at Quarantine July 25th, 26th, 28th and 29th.

No. 35. Discharged cargo at Quarantine August 4th, 5th and 7th.

No. 36. Sent to Gravesend bay July 30th, discharged there August 1st.

No. 37. Sent to Gravesend bay July 30th, discharged there August 1st, Atlantic Dock Sept. 1st.

No. 38. Discharged cargo at Quarantine.

No. 39. Sent to Gravesend bay July 29th, discharged there, sent subsequently to the S. W. Spit.

No. 41. Discharged cargo at Atlantic Dock August 27th.

No. 42. Sent to Gravesend bay, discharged there.

No. 44. Discharged cargo at Quarantine. See note No. 45.

No. 45. Discharged cargo at Quarantine Aug. 1st. Sept. 9th the captain of the "Josiah Jax" was brought from his vessel to the hospital sick with yellow fever. It will be observed by the table of the vessels, that the "J. J." arrived from Ponce, P. R., July 31st, and that the vessel was discharged at Quarantine. She had remained forty days at anchor in the vicinity of an infected district, and sometimes near infected vessels, from which the fever may have been contracted; it is not certain therefore that this vessel was so infected as to have given origin to this case even after the discharge of cargo.

No. 46. Sent to S. W. Spit the day after arrival, Atlantic Dock Sept. 13th.

No. 47. Bound for Leghorn, went to sea three weeks after arrival.

No. 49. Sent to Gravesend bay August 4th.

No. 50. Discharged cargo at Quarantine.

No. 51. Sent to Gravesend bay August 4th.

No. 52. Discharged cargo at Quarantine.

No. 55. The "Jasper" arrived from Charleston August 11th, discharged cargo, and on the occurrence of a case of black vomit she was returned to Quarantine. Two cases of the fever were received from this vessel, the first placed in Quarantine from Charleston, S. C. As early as August 7th we received a case of black vomit which we had reason to believe had originated from a Charleston vessel or her cargo, discharged at piers No.

47 and 10 East river. Proceeded to the city, discharged part of her cargo, and returned to Quarantine, where she remained thirty days.

No. 58. Sent to S. W. Spit the day after arrival.

No. 73. The "Baltimore" arrived Sept. 9th from Baltimore, Md., having on board a case of black vomit. But as this vessel had been fourteen days from Baltimore, and had lain at anchor in the roads of the bay for more than a week, where it is highly probable that some communication was had with an infected vessel, it is far from being certain that this case of fever was contracted in the city of Baltimore, which was reported free from yellow fever.

The total number of seamen admitted to Marine Hospital with yellow fever, immediately upon the arrival of the vessels from sickly ports, was seventy-two, and these were received from thirty-three vessels. The number of cases received subsequently from the same vessels was fourteen, from five of the vessels. Besides these, there were fifteen seamen admitted with yellow fever from nine other vessels arriving from infected ports, and upon which there was no sickness at the time of arrival at Quarantine. Thus the total number of seamen admitted from vessels presumed to be infected was one hundred and one, and these arrived on forty-four different vessels. Besides this number were received from the city six other seamen having yellow fever, who had contracted the malady from sources unknown. But as we shall have occasion to notice in another place, these persons had been peculiarly exposed in certain localities about the city, where there is good reason to believe that the infection of yellow fever existed.

THE SPREAD OF YELLOW FEVER ON STATEN ISLAND.

1. *The Marine Hospital Grounds.*

As has been previously remarked, the first evidence of the presence of yellow fever in an endemic form in the vicinity of the Marine Hospital, was presented July 22d, when two cases of the malady occurred among the residents.

All access to the ground was immediately cut off, so far as I considered that I had legal authority to prevent access to the establishment, and the health of the employees was carefully guarded. The lodgings of the workmen were at once removed to the highest elevation on the western section of the grounds. But the presence of a large company of stevedores lodging in the government store every night, and uneasy of the restraint imposed by the health officer's bonds, made it necessary for the safety of the establishment, as well as the community beyond the walls, that many of our men should serve on the night patrol. This was a perilous service, in which several sickened.

A very large amount of infected clothing from the sick, and bedding, etc., from infected vessels, ~~wet~~ being constantly received and washed at the hospital wash-house, which must be regarded as furnishing a favorable nidus for the infection. Yet that building did not appear to be a source of general infection, as its upper rooms were nightly filled with the stevedores who were unlading vessels, and of whom none that lodged there suffered from the fever.

From the fact that six persons who were employed at, or spent much time in the gate-keeper's lodge, sickened with the fever at an early date, and from various other circumstances, we were led to conclude that the infected district within the inclosure probably extended in a narrow zone by the water side from the south to the north wall. West of that section the ground rises to a considerable elevation and is terraced. None of the persons who

remained permanently beyond the first terrace suffered from the fever until the cool autumnal nights appeared, when several very severe cases occurred in the wards and dormitories on the hill.

Many of those who performed night service seemed to be so saturated with the poison of the malady, that when they yielded to its deadly power they advanced very rapidly to the stage of black vomit. Indeed, from the outset of the endemic, the fever among the employees was observed to be of the most malignant character,—black vomit and haemorrhages occurring in many cases as early as the thirty-sixth hour.

The total number of officers and employees who suffered from the fever was twenty-five, of whom five died. Besides these, there were eight other cases of the malady among residents.

2. *The spread of yellow fever on the Staten Island shore, from New Brighton to Clifton.*

Though the stevedores engaged in unlading infected cargoes began to suffer from the fever as early as July 10th, the pestilence had not gained any foothold until July 17th, when three cases occurred at the Narrows, near Clifton Dock.

The history of the cases as given in the table is sufficiently explicit to exhibit all that can be known of the means by which the infection was received. By reference to the map it will be seen that all the cases are readily accounted for, without requiring proof of any material fomites in or about the dwellings of those who became the victims of the fever. But it is known that considerable refuse material from vessels in Quarantine was floated to the Staten Island beach by every flood tide. Such was particularly true of the section north of the Quarantine walls, and at every ebbing tide refuse materials floated and lodged upon the beach near Clifton, where the fever first became endemic on Staten Island. Besides the cases mentioned in the table, there were twenty-nine stevedores, resident on the Island, who contracted the fever, of whom twenty-eight were brought into the hospital. In addition to these, five stevedores sick with the fever were admitted to Marine Hospital from the city.

THE SPREAD OF YELLOW FEVER AT FORT HAMILTON AND ON THE LONG ISLAND SHORE.

The history of the pestilence by which we have been visited would be quite incomplete without a full statement of the calamitous events by which its inefaceable footsteps were marked on the shore opposite to Quarantine. And in no part of the world has the prevalence of yellow fever been marked by a more instructive series of facts; and nowhere in a rural district, has this fever been witnessed in a less uncomplicated or more malignant form.

It will be observed that three fatal cases of yellow fever occurred previous to July 20th, on the Long Island beach, directly opposite the Marine Hospital, and that *previous to July 27th fourteen cases had occurred, ten of which proved fatal.*

Respecting the nature of the case of Judge Rockwell, doubts have been expressed, but I give the list as approved by the best medical authorities acquainted with the cases.

The first two cases occurred on Mr. Hunt's place a little below Greenwood cemetery, and about 300 paces off the beach. The two men were bathing in the bay, Saturday evening, July 11th, and there examined a quantity of straw, which had been left on the beach by the receding tide, and they requested their employer, Mr. Bergen, to allow them to remove this straw to the farm-yard. The following Monday, one of these men was attacked with all the symptoms of yellow fever; and in like manner, the other man on the succeeding day. Both died with black vomit. These men occupied a dormitory in an outhouse, and after they had died two other laborers were hired, lodged in the same room, and successively sickened and died with black vomit. These are cases No. 16 and No. 27 in the table.

Mr. M. Bergen was quite ill, but it is not included in the list of cases. He allowed nothing brought from the shore to his dwelling, and was on board no vessel, but his residence was very near to, if not situated in the midst of a highly infected district.

On the beach at the foot of 46th-street lived a Frenchman, a *chiffonier*, who had been very busy gathering and drying refuse, clothing, &c., which he picked up along the shore. In this manner the district in that vicinity probably became infected.

Hence it is easy to account for the large number of cases that occurred there. This rag-picker, No. 11 in the table, sickened July 25th and died on the 28th.

July 26th, a distinguished citizen, Judge Rockwell, residing about a mile south of the locality last mentioned, died very suddenly, perhaps of some other disease than yellow fever; but on the same day another wealthy citizen, Chandler White, Esq., was attacked with the fever and died of black vomit on the 8th of August. On the 28th of July, five cases of fever occurred in four families near the Bay Ridge dock, north of Mr. White's, and of these, three soon died with black vomit.

August 1st the pestilence set its fatal seal on the Fort Hamilton district, a mile south of Mr. White's residence and near to the fort. On that day died General Stanton, of the U. S. Army, and as his mansion was situated on an elevation which looked out directly upon Gravesend bay, and was surrounded on the north and west by a dense grove, it was presumed that the deadly infection had been wafted to his delightful residence by southerly winds which swept over the infected shipping at Gravesend. Previous to General Stanton's death a large number of vessels had discharged cargo at that anchorage for infected shipping, the dates and locations of which are indicated on the map and in the tables.

On the day of General Stanton's death two soldiers in the Redout were attacked with the fever, and up to August 8th twelve cases had occurred in the fort. The history of these cases was such as to convince the intelligent and distinguished physician of the garrison at Fort Hamilton, that the infection had reached that stronghold by atmospheric agency alone. By reference to the dates, &c., in the tables, and a comparison of these with the facts noted in the Meteorological Register, some important and instructive deductions may be made.

Thirty-one cases of yellow fever occurred among the command at Fort Hamilton, besides the case of its distinguished physician, Dr. J. H. Bailey, whose unwearied labors for the relief of the pestilence-stricken population beyond, as well as for those within the fort; were terminated by a severe attack, from which he finally recovered.

It will be observed that we have noted three distinct and nearly equi-distant points at which yellow fever made its appearance on the Long Island shore, between Gravesend bay and Gowanus, a distance of nearly four miles. Subsequently, viz., about the 10th of Sept., the fever made its appearance in one house near Partridge's mill, near Coney Island. But those who became its victims, are believed to have handled materials that floated on shore from the vessels. As regards the nature and mode of the infection received at the first named three points, there can be no doubt that at the two most southerly, the cause and mode of access was *atmospheric*, while at the first, near Gowanus, it may have been by *material fomites*.

The foregoing sketch of a few of the leading facts relating to the pestilence as it appeared on the Long Island shore, has been given in order to illustrate points which are of vast importance in the history of the late endemic at Quarantine. The complete history of the endemic as now gathered, would fill a large volume, but the leading points only are requisite for the purposes of this report.

CASES OF YELLOW FEVER IN THE CITY OF NEW-YORK.

Fifty cases of yellow fever were admitted to Marine Hospital from the city of New-York. Eight of these cases were traceable directly to Brooklyn, and the origin of nearly all the others were traced directly to vessels which were believed to be infected. The only exceptions, besides those which we have previously mentioned, were—

1. Several seamen and one Italian organ-grinder, from Water street.
2. Six persons from the immediate vicinity of pier No. 11 and Albany street, North river.
3. Two cases from the waterside near the foot of 31st and 28th-street, North river.

All these were strongly marked and unmistakable cases of yellow fever, several of them terminating in black vomit, and there can be no doubt that in all of them the infection was received at certain well known localities by the river sides.

Most of the cases of yellow fever which remained and were treated in the city were traced to the infected shipping at Quarantine.

The cases admitted to the hospital and traced to Brooklyn did not furnish any *proof* that any other section of that city was infected than that which is situated between the Atlantic dock and the South ferry.

There were three cases, however, the history of which afforded evidence that by some means the infection of the fever had reached some section near the Wallabout. But the etiology of these, like that of the cases received from the vicinity of 31st-street, North river, will perhaps remain buried in obscurity. They occurred late in the season, and may have originated from sources that did not expose others to danger.

THE ENDEMIC OF YELLOW FEVER ON GOVERNOR'S ISLAND.

July 29th yellow fever made its advent in the South Battery of Governor's Island and prevailed for about four weeks. There were sixty-four cases of the malady.

It is an interesting and important fact that the fever prevailed only in the immediate vicinity of the South Battery, which is the nearest and most exposed to the Atlantic dock, from which Governor's Island is separated only by a narrow channel. (See the map.)

CASES OF YELLOW FEVER ON THE NEW JERSEY SHORE.

Sept. 4th, four persons, the remaining members of a family in the 15th ward, New-York, were admitted to the Marine Hospital, two of them being strongly marked cases of yellow fever.

The mother and son had died just previously, the son's illness being yellow fever with black vomit. This family had, for the purpose of sea bathing, been residing for two or three weeks at Craven Point, Bergen, N. J. The house they occupied was so situated that at the highest tides it was nearly surrounded by water, and frequently there was much refuse material, etc., left on the beach by the receding tide. The owner of the dwelling

suddenly sickened, and after but a few days illness died. His widow subsequently became ill with like symptoms, but recovered. During the brief interim between these events the family from New-York returned to their residence in the city, where in the course of four days the first case of yellow fever occurred in the circle that had recently left their pleasant residence by the sea-side.

July 23d a man from Bergen Shore, N. J., was admitted to the New-York City Hospital with yellow fever. He was a farm laborer, and had not been absent from the farm for a long period. He died July 24th.

Thus did the pestilence of yellow fever invade the territory of New Jersey, and it is believed that several other cases of the fever occurred in that State, but no account of the cases, sufficiently accurate for publication, has yet reached me. It is well known that cases of yellow fever did occur in Jersey City during the past summer and autumn.

The same agencies which protected the thickly inhabited shores of New Jersey, from the city of Newark to Hoboken, equally prevented the extension of the pestilence to the cities of New-York and Brooklyn, which escaped with but the slightest visitation of the dreaded fever.

Having now completed the sketch which we proposed to give of the origin and progress of yellow fever at Quarantine and in the vicinity of New-York during the past season, it now remains only to refer to the atmospheric and the tidal agencies which were connected with the events we have recorded.

The Tides.

The flood tide has great force in passing the Narrows, and in the vicinity of Staten Island shore near Quarantine. Floating materials are conveyed with great facility and certainty towards Craven Point and Jersey city, as well as up both the North and the East rivers.

The receding or ebbing tide returns such of those floating materials as do not find lodgment about the shores just mentioned, back towards the Narrows, or down the Kill van Kull towards Newark bay, the greater force being in the direction of Yellow Hook, and Fort Hamilton and Clifton. The entire beach

of Yellow Hook is the grand lodging place for refuse floating materials that are borne on the receding tides of the upper bay. In that locality the pestilence first made its appearance, prevailed longest, and was most malignant.

There can be no doubt that the most active cause of the pestilence which more than decimated the entire population of the waterside in the last named locality, was from the accumulation of infected materials floated from the vessels in Quarantine. We have already noticed the extension of the fever to New Jersey shore by the same agency, and it is rational to presume that the cases of fever which we admitted from the upper districts of New-York and Brooklyn received the infection from a similar cause.

The agency of the tides, therefore, must be regarded as one of the most important and active in diffusing yellow fever from the present Quarantine anchorage, especially as the distance to, and the location of the favorable points for retaining floating materials is such, as to give the greatest facilities for a ready deposit of such *fomites*.

It is not improbable that not only the city of New-York, but the whole sisterhood of cities and suburban villages which cluster around this entrepôt of the world's commerce, may yet be devastated by a visitation of pestilence as frightful as any that has blighted the city of New Orleans.

It may be regarded as a fact of vast importance to the commerce and health of New-York and vicinity, that the anchorage for infected vessels should be at least thrice its present distance from the city.

The Meteorological Phenomena of the Season.

The Meteorological Register, which is included in this report, was kept as directed by government at Fort Hamilton, by my friend, Dr. J. H. Bailey, U. S. A., by whose politeness it has been furnished for my use, as it more accurately represents the facts relating to the infected district than any similar record which has been kept elsewhere.

I will only refer in this place to one striking fact noted in the register. Between the 21st and the 30th July the wind was continually from the south-west during the afternoon of each day, while the temperature ranged unusually high, and was accom-

panied with a corresponding degree of humidity of the atmosphere.

It will be recollected, that on the 29th of July, yellow fever was announced as endemic at the fort and its vicinity; and at the same time it was raging most fearfully at Quarantine. The same date also marks the commencement of the endemic on Governor's Island.

In closing this record of the late visitation of the yellow fever, I do not deem it my duty to attempt any discussion of the arguments respecting the question of the removal of the Quarantine station. The logical deductions and inferences to be drawn from the facts here given are sufficiently obvious however to render such additions to that report quite unnecessary.

The history of the past season appears to demonstrate that *the present Quarantine anchorage is most favorably located for the ready diffusion of the infection of yellow fever to the populous regions adjacent to the waters of the port and vicinity of New-York.* But the people of New-York and New Jersey, like the inhabitants of cities in the vicinity of a volcano, may not heed the loud, unerring and timely warning until the magnificent centres of the population and wealth of these States have been devastated by pestilence.

The relation which the Commissioners of Emigration sustain to the care and management of the Marine Hospital is one which has been equally essential to the public health, and to the welfare of the vast numbers of sick emigrants that become patients at this institution. Since the year 1847 the entire responsibility of providing for the expenses of the Quarantine hospitals has devolved upon the Commissioners of Emigration. During the prevalence of ship fever, and while the influx of famished and sickly immigrants continued to over-crowd the hospitals at Quarantine and the institutions on Ward's Island, the public welfare, no less than the interests and responsibilities of that commission, rendered it expedient for the State to grant every facility which the hospitals at Quarantine could afford for the humane purposes of that board.

The laws of 1849 and 1853 direct that *infectious and contagious diseases only*, or persons ordered into Quarantine by the sanitary authorities, shall be admitted to the Marine Hospital. The same

laws also provide that the Chief Physician of the Hospital shall be an administrative officer, appointed for an unlimited term of office by the Governor and the Senate of the State. The Physician-in-Chief of the Hospital is *ex-officio* superintendent of the grounds and buildings pertaining to the institution, and he is invested with powers and responsibilities on the hospital grounds co-ordinate with the powers of the Health Officer in his department on the waters of the Port. The statutes at present regulating these co-ordinate departments of the Quarantine service are well adapted to secure the greatest possible efficiency and harmony in this service.

The peculiar responsibilities of the Chief Physician of the Hospital are such that he cannot be absent from the establishment for a day during the sickly season. The careful investigation and the prompt and accurate diagnosis of every case of disease admitted to the Marine Hospital is of the utmost importance alike to the public health and the interests of commerce. This labor, as well as the management and police of the establishment, very properly devolve upon this officer.

Inasmuch as the public welfare and every interest affected by Quarantine restrictions, as well as the great interests of humanity and of medical science, demand that the Physician-in-Chief of the Quarantine Hospital should be *exclusively* devoted to his professional and humane duties, and as these great interests require that he should possess peculiar qualifications and experience, it is highly desirable that the office and its duties should be properly appreciated and provided for. It is manifest that an officer having such public responsibilities, and taking such personal hazard of life and health, should be invested with all the personal responsibility, dignity and powers which are incident to the high and responsible source from which, as a State officer, he receives his appointment.

As regards the practical operation of the present system of arrangements for the medical service and the care of the Quarantine hospitals, it may safely be stated that it answers the demand of every public and humane interest, and it is truly economical. The Commissioners of Emigration exercise a revisory power over all appointments to the service, and have full control of the financial affairs of the institution, except as regards the appointment and salary of the Chief Physician.

It affords me great pleasure to state that the Commissioners of Emigration have afforded every requisite facility for the efficient management of the Marine Hospital. Our efforts to secure the utmost economy and efficiency in the establishment have been mutual, and so successful that, notwithstanding the unusual expenses incident to the provisions for yellow fever during the past eventful season, the aggregate disbursements for the institution have been much less than in any former year. It should be stated that under the existing statutes the Emigrant Fund pays all the expenses of the Marine Hospital, and that this fund is not suitably reimbursed for the large expenditures incurred in the care of sick citizens and others than emigrants who are admitted to this institution.

As ship-fever, and other infectious maladies which require *isolation at a distance from the city*, have nearly disappeared from our emigrant passenger vessels, and as there is good reason to believe that it may be many years before the sanitary interests of New-York will again require that the Quarantine hospitals be devoted mainly to the necessities of our immigrant population, it would seem that justice to the Emigrant Fund and to its Commissioners, no less than the sanitary and the commercial interests concerned in this class of persons, require that some modifications be effected in the arrangements for the care of the various classes of patients now provided for at Quarantine.

Should the present effort to secure the removal of the Quarantine station to a greater distance from the city prove successful, the new establishment should be devoted exclusively to yellow fever and cholera, and to passengers arriving from sea with small-pox and other dangerously infectious and contagious maladies; while no residents in the cities, sickening with any other disease than yellow fever, should be conveyed to a greater distance from the city than Wards', or Blackwell's Island. The medical facts relating to this subject, no less than humanity to the sick, render it my duty to make this suggestion respecting the removal and the proper care of the sick. And the truth requires the further statement that the Quarantine for yellow fever should be removed to the greatest feasible distance from the cities and their populous environs, and that, during the prevalence or the presence of that malady, the sick and all infected materials should be kept as completely isolated as circumstances will permit.

With these remarks we conclude this report, and in closing it is proper that honorable mention be made of DR. THEODORE WALSER, the Assistant Physician of the Hospital, who has heartily co-operated in all the severe and hazardous service of the institution, and has most intelligently assisted in the efforts to preserve complete records of such facts as should be observed and recorded at the Quarantine Hospital. He is eminently worthy the station he occupies.

In all departments of the service at this institution, perfect subordination and faithful attention to duty prevail. The discipline of the establishment is necessarily rigid, but it is not regarded as oppressive. It is believed that there have been no successful infractions of Quarantine laws or of the rules of the institution by any persons who have been placed in the keeping of the Hospital.

While from the Quarantine Hospital we have looked out upon the delightful watersides in its vicinity, and have marked and recorded the events of a fearful pestilence, whose dark shadow rested gloomily over miles of an infected district, and which finally passed slowly and unseen along each river side upon the verge of our cities; and while the destroyer was seen at the portals of the great centres of our commerce and population, and from our midst was suddenly bearing away its unwarned victims, we have felt that our duty to our fellow men would be ~~badly~~ improperly performed if we neglected any measures within our control which could protect the sanitary interests of community, or even if we failed faithfully to chronicle all the instructive events connected with the progress and history of the endemic. And while such labors have been performed, and our best efforts and energies have been given to this work, by night and by day, the history of the late visitation of yellow fever among us has furnished striking evidences that the city of New-York and its populous environs were saved from a fearful desolation through the interposition of that beneficent Providence which controls the winds and appoints the events of nature and the affairs of men.

ELISHA HARRIS, M. D.,
Physician of Marine Hospital.

MARINE HOSPITAL, QUARANTINE, }
STATEN ISLAND, N. Y., Jan. 31, 1857. }